

REMARKS

Claims 1-22 are pending in this application. The non-final office action mailed September 08, 2003 rejected claims 1-22. Applicant has amended claims 1, 2, 4, 7, and 14-22 to further clarify the subject matter of the claimed invention. Applicant has added new claims 23-25. No new matter has been added, and it is respectfully submitted that each of the present claims find basis and support in the application as filed. For the reasons discussed in detail below, Applicant submits that the pending claims are patentable over the art of record.

Rejection of Claims 1-4, 7, 8, 10, 11, 17-22 under 35 U.S.C. §103

The Office Action rejected Claims 1-4, 7, 8, 10, 11, 17-22 under 35 U.S.C. §103(a) as being unpatenable over U.S. patent No. 6,035,326 to Miles et al (hereinafter "Miles").

The Applicant respectfully submits that Miles does not teach or suggest the claimed invention. For example, amended Claim 1 recites, among other things, a method for employing a plurality of data structure types to optimize the retrieval of at least one data object over a network. Each data object is stored in a data store such that each data object is separately reference in each of the plurality of data structure types. In response to a request for one data object, Claim 1 further recites, automatically determining one of the plurality of data structure types best suited to retrieve the one data object and employing the determined data structure type to locate and retrieve the one data object from the data store.

As supported in the specification, a plurality of data structure types as recited in Claim 1 includes at least a list data structure for storing data objects, a Trie data structure, and a hash data structure. See Specification, page 5, line 30, and page 6, line 10. Dependent claims 4 and 19

further differentiate the plurality of data structure types to include at least a list, hash, and trie data structure.

Unlike the claimed invention, however, Miles neither discloses nor suggests a plurality of data structure types, where each data object in a data store is separately referenced in a determined one of the data structure types. Rather, Miles merely describes a domain hierarchy tree for mapping between a plurality of memory mapped files, such as those arranged for messaging protocols. Miles, Col. 1, lines 9-13, and Col. 2, 45-61. Miles does disclose use of a domain hierarchy tree as an MxN Trie matrix (Col. 3, lines 29-37). Miles does not employ a plurality of data structure types, such as a trie, a list, and a hash type of data structure to perform a search. Moreover, although Miles, mentions hashing (Col. 3, lines 401-46), however, it is a hash function that is used to select a subscript, k , to address each column N in the Trie matrix. Clearly, Miles does not suggest or describe each data object in the data store being separately referenced with a hash type of data structure, let alone a plurality of data structure types as recited in the claimed invention.

Additionally, unlike the claimed invention, Miles does not disclose or suggest enabling the automatic determination of one of the plurality of data structure types best suited to locate and retrieve the one data object. As Miles only describes a Trie matrix data structure, Miles does not make any determination to select it from a plurality of other data structure types. Hence, Miles can not suggest or teach determining one of the plurality of data structure types best suited to locate and retrieve the one data object. Thus, for at least these reasons, Applicant respectfully submits that Miles does not render the claimed invention obvious.

Further, the Office Action acknowledged that Miles fails to disclose that “in response to a request to delete at least one data object, automatically deleting each reference to each deleted data

result of information from people searching. De Varax, page 1, paragraph 0022- page 2, paragraph 0023. Therefore, for at least these reasons, Applicant respectfully submits that De Varax does not make the claimed invention obvious.

In regard to Claims 15-16, they are dependent on independent Claim 14, and are allowable for at least the same reasons listed above for that independent claim.

CONCLUSION

By the foregoing explanations, Applicant believes that this response has responded fully to all of the concerns expressed in the Office Action, and believes that it has placed each of the pending claims in condition for immediate allowance. Early favorable action in the form of a Notice of Allowance is urged. Should any further aspects of the application remain unresolved, the Examiner is invited to telephone applicant's attorney at the number listed below.

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Respectfully submitted,

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